Patent
Docket No(s). 260/012;
OI7017812001

REMARKS

Claims 1-32 are pending in this application. Claims 16 and 21 have been amended solely to correct grammatical errors. The amendments do not change the scope of the claims. No new matter has been added.

In connection with this application, paper IDSs were filed on October 9, 2003, and January 19, 2005, an electronic IDS was filed on January 19, 2005, and supplemental IDSs were filed on February 23, 2005, and July 22, 2005. Applicants note that only the October 9, 2003, IDS and the July 22, 2005, supplemental IDS have been initialed by the Examiner. Applicants respectfully request that the Examiner review and initial the remaining IDSs that Applicants have filed.

35 U.S.C. § 102

Claims 1-6, 8-15, 18-19, 22, 24-29 and 32 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 6,708,173 (Behr et al.). According to page 3 of the Final Office Action dated August 8, 2005, Behr et al. allegedly anticipate each and every limitation of independent Claim 1. Applicants respectfully traverse this rejection.

Claim 1 recites "[a] computer implemented process for materializing a trace in a markup language syntax, the process comprising: creating a meta-language grammar; creating a trace grammar in which the trace grammar complies with rules of the meta-language grammar; generating one or more traces compliant with the trace grammar; parsing the one or more traces; identifying interrelationships within the one or more traces; and generating a new version of the one or more traces using a markup language syntax." In contrast, Behr et al. disclose an application server (the "Cool ICE system") that interfaces with a specific database management system provided by Unisys. The Cool ICE system includes a simple tracing program that provides debugging capabilities for multiple components over the internet. For example, Behr et al. specifically disclose:

> The present invention overcomes the disadvantages of the prior art by providing a method of and apparatus for debug [sic.] of multiple component applications for access of a legacy data base management system via [sic.] Internet terminal.

Behr et al., column 4, lines 64-67, emphasis added.

Claim 1 of the present application recites the act of "creating a meta-language grammar." At page 3, the Final Office Action states that the disclosure "data transferred from the user over the internet in HTML format," which appears at column 5, lines 3-4 of Behr et al., anticipates the act of "creating a meta-language grammar." Applicants respectfully disagree. Behr et al. merely discuss transferring transaction data over the internet and then translating the transaction data into a new format that can be used in conjunction with a database management system. The cited passage of Behr et al. specifically states:

> [T]he present invention must first provide an interface herein referred to generically as a gateway, which translates transaction data transferred from the user over the internet in HTML format into a format from which data base management system commands and inputs may be generated.

Behr et al., column 5, lines 1-5, emphasis added.

Neither this passage nor the rest of Behr et al. discloses creating a meta-language grammar. The process of Claim 1 comprises the act of creating a meta-language grammar, wherein trace grammars created as part of the process must comply with the rules of the meta-language grammar. Consequently, a meta-language grammar is *not* equivalent to a markup language such as HTML. This is also apparent from the plain language of Claim 1. The final act included in Claim 1 recites "generating a new version of the one or more traces using a markup language syntax." Because the meta-language grammar is not equivalent to a markup language such as HTML, the claimed computer implemented process uses this last act so that the process can "materialize a trace in a markup language syntax."

In addition, the act of *creating* a meta-language grammar is fundamentally different from either *transferring* transaction data over the internet in HTML format or *translating* data from HTML format into a new format which can be used in conjunction with a database management system. The act of transferring data is simply not the same as the act of creating a meta-language grammar. And the act of translating data from HTML format into a new format, as disclosed in Behr et al., teaches away from the purpose of the claimed invention which is to *materialize a trace in a markup language syntax*. Accordingly, Applicants assert that the tracing system

disclosed in Behr et al. does not read on "creating a meta-language grammar" as recited in Claim 1.

Claim 1 further recites "creating a trace grammar in which the grammar complies with rules of the meta-language grammar." This act allows a user of the claimed process to create trace grammars that are suited to his or her specific needs. In contrast, Behr et al. disclose writing traces to a common file. The passage of Behr et al. alleged to be anticipatory at page 3 of the Final Office Action states:

> In accordance with the preferred mode of the present invention, the Cool ICE Data Wizard Join Service provides a web based interface that allows a developer to create a web based service that joins tables from MAPPER Reports, MAPPER runs, databases that are ODBC compliant, and many RDMS, and MAPPER. This service renders the resulting table to the web. This result can be rendered to the web either by a Cool ICE Script or by an Active Server Page.
>
> To assist the developer of such applications, the system of the preferred mode of the present invention employs a tracing facility called "UTrace", which allows components from one or more applications to write trace information to a common trace file.
>
> Behr et al., column 6, lines 25-38, emphasis added.

This passage of Behr et al. merely shows that trace data from different components can be transferred over the internet and saved in a common file. However, writing trace information from multiple components to a common file is not the claimed limitation. In fact, Applicants believe that Behr et al. teach away from the claimed limitation. Behr et al. elaborate upon their tracing process as follows:

> The present invention separates the tracing process into two processes. The trace formatting provides a standardized facility for generically formatting all trace attributes in a common manner. Generic formatting information consists of such items as PID, Thread ID, and time stamp which are useful to the application developer during debug. This common formatting prepares all attributes for storage and access.
>
> Behr et al., column 6, lines 51-58, emphasis added.

Unlike the method taught by Behr et al., the process of Claim 1 allows a user of the process to create a trace grammar. Because a trace grammar is *created* as part of the claimed process, a user of the process can create trace grammars that provide customized traces having,

for example, different trace attributes and/or different trace formats as appropriate for the users needs. Traces thus generated follow the rules of the meta-language grammar created in the first act of Claim 1, but the trace attributes are not limited to items such as PID, thread ID, and time stamp, and the trace format is not limited to a generic format. Consequently, by disclosing "generically formatting all trace attributes in a common manner," Behr et al. not only fail to anticipate the act of "*creating a trace grammar* in which the grammar complies with rules of the meta-language grammar," they teach away from it.

For at least the above reasons, Applicants believe that Behr et al. do not anticipate the process of Claim 1. Accordingly, Applicants respectfully request that this rejection be withdrawn.

Claims 2-6, 8-15, and 18-19 depend from Claim 1 and, as such, are patentable over Behr et al. for at least the reasons presented above. In addition, Claims 2-6, 8-15, and 18-19 recite limitations which further distinguish them from Behr et al. For example, Claim 2 recites the limitation "[t]he process of claim 1 in which a subset of the one or more traces are compliant with a second trace grammar, the second trace grammar being different from the trace grammar, wherein the second trace grammar also complies with the rules of the meta-language grammar." Claim 2 thus provides for the concurrent generation and parsing of traces using different trace grammars. Because the use of different trace grammars provides for the use of different trace formats, Behr et al.'s disclosure of *generically formatting all trace attributes in a common manner* clearly teaches away from the process of Claim 2 on this additional ground. Accordingly, Applicants respectfully request that these rejections be withdrawn.

Independent Claim 32 recites limitations substantially similar to those of Claim 1 and, thus, is patentable over Behr et al. for at least the reasons presented above. Applicants therefore respectfully request that these rejections be withdrawn.

Claims 22 and 24-29 depend from Claim 20. Because Claim 20 does not stand rejected under 35 U.S.C. § 102(e), Applicants believe that Claims 22 and 24-29 were improperly rejected under this section. Accordingly, Applicants respectfully request that these rejections be withdrawn.

35 U.S.C. § 103

Claim 7 stands rejected under 35 U.S.C. § 103 as being unpatentable over Behr et al. in view of U.S. Patent 6,754,890 (Berry et al.). According to page 6 of the Final Office Action dated August 8, 2005, while Behr et al. do not disclose the limitation "the one or more tables comprises hash tables corresponding to keywords in the one or more traces," Berry et al. disclose said limitation. Applicants respectfully traverse this rejection.

Claim 7 recites "[t]he process of claim 6 in which one or more tables comprises hash tables corresponding to keywords in the one or more traces." Claim 7 depends from Claim 6, which in turn depends from Claim 1. Accordingly, Claim 7 includes all the limitations of Claim 1. As discussed above, Behr et al. do not disclose each and every limitation of Claim 1. In particular, Behr et al. fail to disclose at least the limitations of "creating a meta-language grammar" and "creating a trace grammar in which the trace grammar complies with rules of the meta-language grammar." Even if Berry et al. disclose the limitation "the one or more tables comprises hash tables corresponding to keywords in the one or more traces," as alleged in the Final Office Action at page 6, Barry et al. fail to cure all of the deficiencies of Behr et al. In particular, like Behr et al., Barry et al. fail to disclose the limitations of "creating a meta-language grammar" and "creating a trace grammar in which the trace grammar complies with rules of the meta-language grammar."

Berry et al. provide a tracing mechanism where the process identifier of a process within a program being monitored is included in the trace file. For example, Berry specifically discloses:

> A method of monitoring execution performance of a program is provided. A process identifier associated with a process within a program is determined, and a trace output file is created for the process such that the file name of the trace output file contains the process identifier. Trace records are generated in response to events within the process. The trace records associated with the process are then written to the trace output file associated with the process. Multiple processes may then be associated with unique trace output files simultaneously. Using this methodology, multiple instances of JVMs may be executing simultaneously, and each JVM may be generating trace records through a profiler. However, the origin of the trace records, as identified by the process identifier of the JVM, is used to place the trace information into a file that is identified through the use of the same process identifier.

Berry et al., column 2, line 63, to column 3, line 11, emphasis added.

Berry et al.'s disclosure of a tracing mechanism that includes a process identifier in each trace file relates to the information content contained in a trace file and, as such, does not teach a process that includes the claimed act of "*creating* a meta-language *grammar*." The tracing mechanism of Berry et al. also fails to teach a process that includes the claimed act of "*creating a trace grammar* in which the grammar complies with rules of the meta-language grammar." As discussed above in regard to Claim 1, the act of creating a trace grammar allows a user of the claimed process to customize traces to suit his or her particular needs by, for example, creating trace grammars that provide for different trace formats and/or include different trace attributes. The simple inclusion of a process identifier in each trace file, as taught in Barry et al., thus does not allow a user to *create a trace grammar*. Consequently, Barry et al. do not anticipate or make obvious either the claimed act of "creating a meta-language grammar" or the claimed act of "creating a trace grammar in which the grammar complies with rules of the meta-language grammar." Barry et al. therefore cannot compensate for the deficiencies of Behr et al.

Because the combination of Behr et al. and Berry et al. fails to teach, disclose or suggest each limitation of Claim 1, Behr et al. and Berry et al. cannot be used to preclude patentability of Claim 7 under 35 U.S.C. § 103. Accordingly, Applicants respectfully request that this rejection be withdrawn.

Claims 16-17, 20, 30, and 31 stand rejected under 35 U.S.C. § 103 as unpatentable over Behr et al. in view of U.S. Patent 6,654,749 (Nashed). According to page 7 of the Final Office Action dated August 8, 2005, while Behr et al. do not disclose the limitation "performing a search of the semantic network based upon a received query," Nashed discloses said limitation. Applicants respectfully traverse this rejection.

Claim 16 recites "[t]he process of claim 8 further comprising: performing a search of the semantic network based upon a received query." Claim 16 depends from Claim 8, which in turn depends from Claim 1. Accordingly, Claim 16 includes all the limitations of Claim 1. As discussed above, Behr et al. do not disclose each and every limitation of Claim 1. In particular, Behr et al. fail to disclose at least the limitations of "creating a meta-language grammar" and "creating a trace grammar in which the trace grammar complies with rules of the meta-language

grammar." Even if Nashed discloses the limitation "performing a search of the semantic network based upon a received query," as alleged in the Final Office Action at page 7, Nashed fails to cure all of the deficiencies of Behr et al. because, like Behr et al., Nashed fails to disclose the limitations of "creating a meta-language grammar" and "creating a trace grammar in which the trace grammar complies with rules of the meta-language grammar."

Nashed merely discloses a search engine. For example, Nashed specifically states:

> In accordance with the present invention, method and system for electronically searching information databases of information sources, which can be accessed for free or on a subscription fee basis, provide for access to information on a topic of interest using a search engine which searches information databases whose data records have been indexed into index fields, such as title, full text content and classification category with a plurality of selections, and where indexing data is stored at an indexed database coupled to the search engine.

Nashed, column 2, lines 40-49, emphasis added.

Nashed further teaches:

> In one preferred embodiment, the server engine includes a query server containing a search processor which performs searching of the indexed database based on the search query entered and expansion words generated from the search query using semantic network expansion.

Nashed, column 3, lines 17-21, emphasis added.

These passages of Nashed detail a search engine that searches indexed database records using semantic network expression. However, Nashed does not disclose anything about a mechanism for tracing, let alone a process for materializing a trace in a markup language syntax that includes the steps of "creating a meta-language grammar" and "creating a trace grammar in which the trace grammar complies with the rules of the meta-language grammar." Nashed therefore cannot compensate for the deficiencies of Behr et al.

Because the combination of Behr et al. and Nashed fails to teach, disclose or suggest each limitation of Claim 1, Behr et al. and Nashed cannot be used to preclude patentability of Claim 16 under 35 U.S.C. § 103. Accordingly, Applicants respectfully request that this rejection be withdrawn.

Claim 17 depends from Claim 16 and, as such, is patentable over the combination of Behr et al. and Nashed for at least the reasons presented above. Accordingly, Applicants respectfully request that this rejection be withdrawn.

Claim 20 recites "[a] system for materializing a trace having markup language syntax, comprising: a first mechanism that receives one or more trace grammars, the one or more trace grammars modifiable within rules of a meta-language grammar; a parser to parse one or more traces complying with the one or more trace grammars; a second mechanism to build one or more semantic networks based upon interrelationships for the one or more traces; and a manifestation mechanism to generate a new version of the traces to include a hyperlink based upon the one or more semantic networks." As discussed above in connection with Claim 1, Behr et al. teach a tracing process that involves generically formatting all trace attributes in a common manner. In contrast, the system of Claim 20 allows for the use of trace grammars that are *modifiable* within the rules of a meta-language grammar. Because the trace grammars are modifiable, the claimed system can parse traces that have, for example, *different trace formats*. Behr et al. teach the advantage of using a single, common trace format, and thus teach away from the use of modifiable trace grammars as recited in Claim 20. Nashed does not disclose anything about the materialization of traces, and therefore does not cure the deficiencies of Behr et al.

Because the combination of Behr et al. and Nashed fails to teach, disclose or suggest each limitation of Claim 20, Behr et al. and Nashed cannot be used to preclude patentability of Claim 20 under 35 U.S.C. § 103. Accordingly, Applicants respectfully request that this rejection be withdrawn.

Claims 30-31 depend from claim 20 and, as such, are patentable over Behr et al. and Nashed for at least the same reasons presented above. Applicants therefore respectfully request that these rejections be withdrawn.

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CONCLUSION

On the basis of the above remarks, reconsideration and allowance of the claims is believed to be warranted and such action is respectfully requested. If the Examiner has any questions or comments, the Examiner is respectfully requested to contact the undersigned at the number listed below.

The Commissioner is authorized to charge any fees due in connection with the filing of this document to Bingham McCutchen's Deposit Account No. **50-2518**, referencing billing number **7017812001**. The Commissioner is authorized to credit any overpayment or to charge any underpayment to Bingham McCutchen's Deposit Account No. **50-2518**, referencing billing number **7017812001**.

Respectfully submitted,
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